ABSTRACT

A portable device **(8)** for recognizing Acute Myocardial Infarction by the patient himself without the help of medical doctors or technicians is described. The invention performs a real-time analysis of the ST segment **(9)** in an ambulatory electrocardiographic measurement environment to help the patient decide by himself that he is suffering an Acute Myocardial Infarct.

The device **(8)** is capable of warning the user that he/she may be suffering a heart attack when the ST segment **(9)** is found to be depressed or elevated. The CARDIOST features a simple-to-use portable electrocardiographic amplifier **(15)** and a microcontroller unit **(17)** to analyze the ST segment **(9)** on the signal received from the electrocardiographic amplifier **(15).** With a software embedded in the microcontoller unit **(17)** the analysis of the ST segment **(9)** delivers the diagnosis to the patient with a visual and acoustic alarm **(18,19,20,21)** representing low, medium or high risk, depending on the status of the ST segment **(9)** shift so that he can seek medical treatment for thrombolisys or any other treatment currently available and influenced by early diagnosis within 4-6 hours without misinterpreting subjective chest pain symptoms, this being a worldwide medical problem since Acute Myocardial Infarction is the leading cause of mortality in the world.